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ABSTRACT

The Fry Readability Graph was used to determine the validity of the publisher's recommended grade usage for four reading series at the fourth, fifth, and sixth grade levels. Three samples were analyzed from each text, and these results were compared with the publisher's stated grade levels. The majority of the basals investigated had an average readability level commensurate with the publisher's recommended grade level; but there were widespread variabilities in reading levels within each basal text. The research indicated the need for increasing teacher awareness of the variabilities found in basal readers. (A review of related research is included.) (Author/RL)

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READABILITY LEVELS OF FOURTH, FIFTH AND SIXTH GRADE BASAL READERS

by

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INTRODUCTION

According to Bush and Andrews (1973) readability is defined as "the measure of difficulty or complexity of any printed material". Teachers have often found that in a comparison of the basal readers they use there is a variation of difficulty among these graded materials. It is not uncommon for the situation to arise in an elementary school classroom where children who are supposedly reading on grade level encounter frustration with the basal reader. Often the problem might be that the reading level of the basal is not really at grade level but, may in fact be, several months or a year above grade level.

At the start of the school year it is the responsibility of the classroom teacher to place her students as accurately as possible in the appropriate reading book. As Fry (1975) states "it is true that matching the level of the student with the level of the material is the basic idea behind readability..." Important as well is the motivation of the reader. Highly motivated students may read material well above grade level. Students of lesser abilities and less desirous of reading may select materials on readability levels below their grade level. In order for a poor reader to increase his proficiency in reading, he needs to read as much as he can and from a wide variety of materials. Many teachers are unaware of the readability levels of the materials which they use in

the classroom. Fry further states that while the use of texts and readability formulae to place children in reading books may not be totally accurate, they are better indicators than a teacher's personal judgment and should be used in conjunction with her observations. In a study by Miller and Marshall (1978) it was found that "trained and experienced teachers of reading were no more able to judge difficulty of learning materials than were undergraduates with no training or experience".

SIGNIFICANCE OF THE PROBLEM

The understanding of the significance of the varying readability levels of a basal series is important because this knowledge will help the teacher to determine not only the proper placement for individual students, but instructional methods as well. If the classroom teacher finds that the basal series is above the instructional level of her students, lesson plans must be adjusted accordingly. The teacher must also have a thorough knowledge of the sequential development of reading skills. In the event that the basal reader is too difficult, she can draw upon her own expertise in order to compensate for this problem.

The use of formulae to measure readability levels of printed matter dates back to the 1920's. Lively and Pressey, Flesch, Lorge, Dale and Chall, Spache and Fry have all devised readability formulae. In recent years

these formulae have been used to assess the readability levels of many basal readers.

Two recent studies have shown that many basal readers are inaccurate as to readability levels. Bradley and Ames (1977) investigated the readability parameters of six basal readers, using the Fry Readability Graph. From their sampling of twenty-four stories in each basal reader, they discovered a wide range of differences in readability levels not only from one basal to another, but within individual books as well. Eberwein's (1979) study was twofold in purpose. In his first investigation he applied the Harris-Jacobson Readability Formulas to three basals, spanning grades one through six. He found that "the average textbook had a range of 4.65 levels. The range in readability levels was generally least at the pre-primer levels and most at the fifth and sixth grade levels". In his second investigation he surveyed classroom teachers to determine their awareness of the readability levels of the texts they were using. The results indicated that most teachers were unaware of the existence of disparities of readability levels both within basals and from one basal to another.

In a research study conducted by Horn (1978) two mathematics and two basal reading series textbooks were compared to determine the accuracy of the readability levels as set forth by the publishers. It was concluded

that the textbooks were within one grade of the publisher's suggested grade levels. "Although these formulas agreed with the publisher's recommended usage, the vast range found within each unit gives a different perspective on the general averages". The researcher did not find one basal reader with a single readability level. Intrabook readability levels varied from section to section with variations existing within stories as well. The results of this study in regard to intrabook readability levels were in accord with the findings of Eberwein.

HYPOTHESIS

A study was conducted with three purposes in mind: to determine the accuracy of the readability levels of four fourth, fifth and sixth grade basal readers as measured with the Fry Readability Graph, to determine the accuracy of intrabook readability levels and to determine whether a developmental progression exists from easy to more difficult material within a basal reader. It was hypothesized that the basal readers utilized in this study would be inaccurate in their readability levels, that intrabook readabilities are inaccurate and that no developmental progression exists within basals thus confirming Eberwein's and Horn's studies.

PROCEDURES

The Fry Readability Graph was applied to four basal reading series on the fourth, fifth and sixth grade levels

to determine their readability levels. The series analyzed were Houghton Mifflin Company, Allyn and Bacon, The Economy Company and the American Book Company. The fourth grade readers studied were Kaleidoscope (Houghton Mifflin), Thundercover and Turnstyles (The Economy Company), Person to Person and Free Rein (Allyn and Bacon) and Clearing Paths (American Book Company). The fifth grade readers studied were Images (Houghton Mifflin), Daystreaming and Bootstraps (The Economy Company), Majesty and Mystery and Standing Strong (Allyn and Bacon) and Crossing Boundaries (American Book Company. The sixth grade readers studied were Galaxies (Houghton Mifflin), Worldwind and Forerunners (The Economy Company), The Widening Path (Allyn and Bacon) and Making Choices (American Book Company).

DEFINITIONS

Basal Reader is a graded series of reading books in which basic skills are sequentially presented.

Readability Level is an approximation of the difficulty of reading material in terms of the grade level at which it can be easily read.

ASSUMPTIONS AND LIMITATIONS

It is assumed that the readability formula gives a reliable estimate of the readability levels of the basals.

This study will be limited to four basal readers on fourth, fifth and sixth grade levels.

FINDINGS

The Houghton Mifflin Company Reading Series (1971) is comprised of fourteen levels. At the lowest level there are readiness materials and a first reader. The series concludes with an eighth reader. Beginning with level ten there is one book per grade.

Level 10 - Kaleidoscope. Three samples from the text were obtained and analyzed. The passage selection from the beginning of the book, as noted in Table 1, has a seventh grade readability level. The passage selection

Table 1
Houghton Mifflin Company Reading Series

Publishers Suggested Grade	Title	Readability Level of Three Samples			Average Readability Level	Publishers Level
		Beg.	Mid.	End		
Level 10	Kaleidoscope	7	2	4	4	4
Level 11	Images	6	4	4	5	5
Level 12	Galaxies	3	7	9	6	6

taken from the middle of the book has a readability level of second grade and the selection sampled from the end of the book has a fourth grade readability level. According to the Fry Readability Graph, Kaleidoscopes has an overall average readability level of fourth grade which is commensurate with the publisher's stated grade level.

Level 11 - Images. The three selections taken from the beginning, middle and end of this reader have readability levels of grade six, grade four and grade four,

respectively. The average readability level for the text is fifth grade which is in agreement with the publisher's suggested readability. Based on the three samplings, the most difficult selection is at the beginning of the book.

Level 12 - Galaxies. This reader has a wide range of readability levels. The overall readability is sixth grade. However, the passage selected from the beginning of the book has a readability level of grade three, the selection from the middle of the book has a readability level of grade seven and the final selection has a readability level of grade nine. This is a span of six grades in one text. Also worthy of note is that the final selection is three years above the stated readability level of the text.

The average or mean readability, however, in each case duplicates the publisher's suggested readability level.

The Allyn and Bacon Reading Series (1978) begins with materials on the readiness level and ends the series with an eighth reader. Two of the readers, Level 16 and Level 18, overlap two grades.

Level 15 - Person to Person. Level 15 has an overall readability of third grade which is a year lower than the publisher's designated level, as seen in Table 2. According to Fry (1968), his readability graph

Table 2
Allyn and Bacon, Inc. Reading Series

Publishers Suggested Grade	Title	Readability Level of Three Samples			Average Readability Level	Publishers Level
		Beg.	Mid.	End		
Level 15	Person to Person	1-2	4	3	3	4
Level 16	Free Rein	3	5	6	4	4-5
Level 17	Majesty and Mystery	4	4	3	4	5
Level 18	Standing Strong	7	5	6	5-6	5-6
Level 19	The Widening Path	4-5	3-4	8	5-6	6

is accurate to "...within a grade level" which would put this reader on grade level. The range of readability in this text is from grades one through four, the fourth grade readability level obtained from the sample in the middle of the book.

Level 16 - Free Rein. This text has an average readability of fourth grade which is in agreement with the publisher's recommended usage. The sample from the beginning of the book has a third grade readability level, the sample from the middle of the book has a fifth grade readability level and the sample from the end of the book has a sixth grade readability level.

Level 17 - Majesty and Mystery. This text is a fifth reader and according to the Fry Readability Graph has an average readability level of fourth grade. As the

graph is accurate to within a grade, this readability is consistent with the publisher's designated grade level. Of the three samples taken, the first two are on the fourth grade level and the final sample is on the third grade level.

Level 18 - Standing Strong. The publisher suggests using this book as a combined fifth and sixth grade reader. The overall average readability is consistent with this recommendation. The selection from the beginning of the book has a seventh grade readability level, the selection from the middle of the book has a fifth grade readability level and the selection from the end of the book has a sixth grade readability level. The final sampling obtained from the previous reader, Majesty and Mystery, has a third grade readability level. Hence the book which preceeds this one concludes with a third grade readability and this reader begins with a seventh grade readability, a span of four grades from the conclusion of one book to the beginning of the next.

Level 19 - The Widening Path. The overall readability of this text is fifth to sixth grade which is in accord with the publisher's ranking of this book as a sixth reader. The scope is variable and encompasses four grades. The sample evaluated at the end of the book has a readability level of eighth grade, which is two years above the suggested grade in which the book is to be used.

The mean readabilities of each text, however, are in disagreement with the publisher's levels only at two levels, the fourth and fifth readers.

The Economy Company Keytext Reading Series (1978) is designed for students who are reading below grade level. This series was selected by the researcher to determine if a series specifically geared for students experiencing difficulty in learning to read is accurate as to stated readability levels.

Level 9 - Thundercover. This text has a wide variation in scope, particularly when one considers that its recommended usage is for the student reading below grade level. The overall average readability level is third grade, as seen in Table 3. This is slightly below

Table 3
The Economy Company Reading Series

Publishers Suggested Grade	Title	Readability Level of Three Samples			Average Readability Level	Publishers Level
		Beg.	Mid.	End		
Level 9 3^1 reader	Thundercover	1	4	6	3	4
Level 10 3^2 reader	Turnstyles	6	6	3	5	4
Level 11 4^1 reader	Daystreaming	4	5	3	4	5
Level 12 4^2 reader	Bootstraps	5	4	6	5	5
Level 13 5^1 reader	Worldwind	3	6	7	5	6
Level 14 5^2 reader	Forerunners	5	6	3	4	6

the designated grade level of fourth grade, but in accord with the publisher's stated grade level based on the Fry Readability Graph. The selection from the end of the book has a sixth grade readability level while the selection sampled from the beginning of the book has a first grade readability level. The sample from the middle of the book has a fourth grade readability level, the only sample commensurate with the publisher's stated grade level of the text.

Level 10 - Turnstyles. This book has an overall average readability level of fifth grade which is slightly above the designated fourth grade readability level but in agreement with the publisher's suggested usage based on the Fry Readability Graph. Two samplings, from the beginning and the middle of the text are the sixth grade level and the final sampling from the end of the book is on the third grade level.

Level 11 - Daystreaming. The publishers have ranked this as a fifth grade text. The overall readability is fourth grade. Taking into account Fry's accuracy to within a grade, this book's readability level coincides with the publisher's recommended usage. The sampling from the middle of the book is on the fifth grade level, while the sampling from the beginning of the book is on the fourth grade level and the sampling from the end of the book is on the third grade level.

Level 12 - Bootstraps. This is a fifth reader in this series and the average readability is fifth grade. The three selections taken from the beginning, middle and end of this reader have readability levels of grade five, grade four and grade six, respectively.

Level 13 - Worldwind. According to The Economy Company this book is suitable as a sixth grade reader. There is a four year range of variability in this text. The sample from the beginning of the book is on the third grade level while the final sampling is on the seventh grade level. The selection from the middle of the book is on the sixth grade level.

Level 14 - Forerunners. This book is ranked by the publishers as a sixth grade reader, However, the results obtained from the Fry Readability Graph place this book on a fourth grade readability level. It is noteworthy that the first selection has a readability level of fifth grade, the middle selection a readability of sixth grade and the final selection a readability of third grade.

The American Book Company Reading Series (1980) begins with readiness materials and ends with a sixth reader.

Clearing Paths. According to the Fry Readability Graph the overall average readability level of this text is third grade. As the graph is accurate to within a grade, this readability is consistent with the publisher's

designated grade level for this book, as noted in Table 4.

Table 4
American Book Company Reading Series

Publishers Suggested Grade	Title	Readability Level of Three Samples			Average Readability Level	Publishers Level
		Beg.	Mid.	End		
4	Clearing Paths	3	3	6	3	4
5	Crossing Boundaries	3	3	5	3	5
6	Making Choices	5	8	3	5	6

Samples from the beginning and middle of the text are on a third grade level while the sampling from the end of the book is on a sixth grade level, a jump of three grades from middle to end.

Crossing Boundaries. This text, which is a fifth grade reader, has an overall readability of third grade. As has been noted above for Clearing Paths, the fourth grade reader, selections from the beginning and the middle of the book are on a third grade level. The final selection in this text has a readability level of fifth grade which is below the readability level of the final selection in book four.

Making Choices. Three samples from the text were analyzed and plotted on the Fry Readability Graph. Of the three books researched in this series, Making Choices was the most variable in readability levels. The passage

selection from the beginning of the book has a fifth grade readability level. The passage taken from the middle of the book has an eighth grade readability level and the selection sampled from the end of the book has a readability level of third grade, which ranks it below that of the sample taken from the middle of the book. The overall readability of this text is fifth grade. As Fry has stated that his formula is correct to within a grade, this book has an average readability level which is in agreement with the publisher's suggested grade level. Two of these samples are, however, at marked variance to the publisher's designated levels.

CONCLUSION

This study was undertaken with three purposes in mind: to determine the accuracy of the readability levels of four fourth, fifth and sixth grade basal readers as measured with the Fry Readability Graph, to determine the accuracy of intrabook readability levels and to determine whether a developmental progression exists from easy to more difficult material within a basal reader.

It was hypothesized that the basal readers utilized in this study would be inaccurate in their readability levels. The results of this research indicate that, with the exception of two texts, the readability levels of all other books examined are commensurate with the publisher's suggested grade levels, thus rejecting the

first portion of the hypothesis. These findings are in accord with those of Horn (1978) who found "no significant difference between the readability level suggested by the manufactured texts and actual computations of readability formulas".

It was further hypothesized that intrabook readability levels within basals are inaccurate. The data from this study is in agreement with this hypothesis. The researcher found wide variations in readability levels from story to story. The widest range of readability levels in a single text, that of six years, is seen in the sixth reader in the Houghton Mifflin series. None of the series surveyed has a readability level which remains constant throughout any of its texts. In the studies of Horn (1978) and Bradley and Ames (1977) similar data was noted.

Lastly, it was hypothesized that no developmental progression of material from easy to difficult exists in basal readers. The results obtained from this study support this hypothesis. In six of the texts there is a progression of difficulty. However, in each instance, there is an increase of at least two grades in readability levels in a single text, making the material exceedingly more difficult at the end of the book than at the beginning. Eberwein (1979) concluded from his research that "...the data did not support the generalization that the first third is the easiest, the last third is the most difficult

and the middle section is between the first and last in difficulty".

How can the results of this study affect the classroom teacher and, more importantly, the student? As Eberwein (1979) has indicated, the majority of the classroom teachers are not cognizant of the range of variability which exists from basal to basal and within individual basals as well. Teachers need to be educated as to the use of readability formulae in order to adapt the material at hand to the level of the students in the classroom. Factors which influence readability-- namely, sentence length, vocabulary, concept load and author's personal writing style should be taken into account in the selection of textbooks. Although many texts may have the same overall readability levels, the scope of individual units and stories vary greatly.

The first reference to readability, according to Hirsch (1977), was made by Herbert Spencer as early as 1852. In an essay published in the Westminster Review, Spencer although not using the term "readability" specifically, alluded to it by his mention of the words "economy of the reader's attention" and "least possible mental effort". (1977)

In 1923, concern over the many technical words found in a junior high school science textbook prompted Lively and Pressey to devise a method to evaluate the vocabulary complexity in reading material. This method was based on a sampling of one thousand words culled from a science text. A vocabulary list of all the different words found in the sampling was made and these words were compared with those in E.L.Thorndike's The Teacher's Word Book. The words not found in Thorndike's book, but found in the one thousand word sample, comprised the technical vocabulary of the text. Lively and Pressey recommended using this method "as a basis for a study of vocabulary burden". (1923)

Vogel and Washburne (1928) not only used vocabulary load to determine reading difficulty, but sentence structure as well. They evaluated seven hundred childrens' books for structural difficulty. The formula they applied to those books was made up of the "number of different words in one thousand, the number of prepositions in one

thousand, the number of uncommon words in one thousand and the number of simple sentences in seventy-five". Although they analyzed books selected by children for their enjoyment, rather than for required reading, Lively and Pressey noted that grade level could be determined for any elementary school textbook in regards to structural difficulty using this method.

In the following years many new readability formulae were devised. One of the first easy-to-use formula was developed by Irving Lorge (1939). This formula was concerned with five factors;

> the number of personal pronouns per hundred words, the number of different hard words per hundred words, the average sentence length in words, the percent of different words to total words and the number of prepositional phrases per hundred words.

Rudolph Flesch (1943) utilized some statistical data from Lorge's study to devise a readability formula based on 'average sentence length in words, number of affixes and number of personal references". Both of these readability formulae used the graded passages of the McCall-Crabbs Standard Test Lessons in Reading as the criterion of difficulty (1974) as did Dale and Chall (1948). Their formula is comprised of vocabulary load (number of words not found on the Dale list of three thousand words) and average sentence length.

George Spache (1953) introduced a readability formula for use on written material in grades one through

three. The previously described readability formulae of Lorge, Flesch and Dale-Chall were inapplicable to primary grade material. In his formula he used percent of words not included on the Dale list of seven hundred sixty-nine words and sentence length as the determinants of reading difficulty.

Edward Fry's (1968) formula is much less complicated and time consuming than the readability formulae of Flesch and Dale-Chall yet it correlates well with them. Its simplicity is of prime importance to busy classroom teachers. Fry considers the score derived from the Readability Graph to be "probably within a grade level" of accuracy. The Fry formula involves counting the number of syllables per one hundred words and counting the average number of sentences per one hundred words. The counts are tallied, plotted on a graph and the grade level of the reading material is observed.

The "SMOG" formula, introduced by Harry McLaughlin (1969), is another easy to use readability formula. It is based on "counting polysyllabic words in a fixed number of sentences...and converting counts into grades". In a comparison of the SMOG formula with the Dale-Chall readability formula, the SMOG appeared to be two grade levels higher. However, this was attributed to the use of one hundred percent comprehension as a criterion.

In recent years the trend has been toward

simplification of readability formula as evidenced by the studies of Fry and McLaughlin. A formula the classroom teacher will use is one which can be computed quickly and easily. According to Fry (1975), applying a readability formula to written material to determine grade level is a more accurate means of assessment than a teacher's subjective evaluation of the material. In a study by Miller and Marshall (1978) one hundred individuals ranging from those with no teaching experience (undergraduate students) to reading specialists were divided into four groups. They were asked to read and make judgments about grade levels on six reading passages encompassing grades one through six. The results indicated that although different criteria were employed in arriving at the evaluations, "trained and experienced teachers of reading were not more able to judge difficulty than were undergraduates with no training or experience". The researchers further noted that those who participated in the study were not aware of the role that differences in vocabulary, sentence length and structure, author's style and concept load play in determing the difficulty of written material.

Kurth and Moseley (1977) found that the three factors which exert the greatest influence on the readability level of written materials in the middle grades are "length and complexity of sentences, frequency of the vocabulary and the concept density of the material".

They suggested several methods to reduce the readability levels of difficult material. Shortening lengthy sentences is one way of making written material more readable. Changing sentences written in "the passive voice to the active voice" is another. A book with repetitive vocabulary usually aids in the comprehension of material. Concept load is a definite consideration when textbooks are to be used. Books which include many difficult concepts will be harder for most children to master than those with a lower concept density.

Several studies recently conducted have shown that many books read by children are inaccurate in terms of readability levels. In a study by Paolo (1977), one of the conclusions drawn was that trade books labeled "Easy-to-Read" were not easy to read at all but were written on the frustration level of the first and second graders who read them. Paolo noted, "the research has indicated that many of these books are too difficult for their intended audience...".

Bradley and Ames (1977) evaluated the readability of second, third and fourth grade basal readers using the Fry Readability Graph. They found a wide range of readability levels in six basal readers within one series. "The fourth reader was found to include samples that varied thirteen grade levels (first grade to college)". When the study was further expanded to encompass two

other basal reading series, similar findings were seen. An investigation of the stories contained within these basals also showed wide variation in readability levels within stories as well.

Eberwein's (1979) research yielded similar results. His study was twofold in purpose. He first assessed three basal reading series used in grades one through six for accuracy of grade levels using the Harris-Jacobson Readability Formulas. His data showed that there were extremes in readability levels in all the basal readers evaluated. This variation in readability levels was smallest at the pre-primer level and greatest at the fifth and sixth grade levels. He further discovered wide ranges of readability levels among the different series investigated. There was no progression of difficulty from the beginning to the end of a basal reader except at the pre-primer and primer levels. In the second part of Eberwein's study he surveyed classroom teachers to determine their awareness of the variabilities existing in basal readers. His data showed that most teachers were not aware of the wide ranges that existed within books in one series and from one series to another. Eberwein recommended training teachers in the proper usage of readability formulae to help them assess the textbooks in their schools. Miller and Marshall (1978), in a previously cited study, also found that teachers were lacking in

knowledge regarding readability formulae and suggested that instruction in this area be included in teacher training programs.

Horn (1978) compared two basal reading series textbooks and two mathematics textbooks on the fourth, fifth and sixth grade levels to determine the accuracy of the readability levels as set forth by the publishers. The Fry Readability Graph was used to assess the readability levels of the texts. Of the six books evaluated, five were within a grade level of their designated usage. One of the textbooks, on the fourth grade level, was two years above grade level. Although the majority of the books deviated only one grade level from their stated grade, "...the vast range found within each unit gives a different perspective on the general averages...no one particular basal had a sole readability level and cannot, therefore, be accurately designated as a single grade leveled book".

The studies by Paolo, Bradley and Ames, Eberwein and Horn have all concluded that textbooks in use in today's schools vary greatly as to readability levels. They also point to the need for better teacher education in regards to the use of readability formulae. Knowledge of the proper grade levels of written material will guide the teacher in the appropriate matching of students with books.

REFERENCES

Bradley, John M. and Ames, Wilbur S. "Readability Parameters of Basal Readers", Journal of Reading Behavior, 1977, 9, 175-183.

Bush, Clifford L. and Andrews, Robert C. Dictionary of Reading and Learning Disabilities Terms. New Jersey: Educational and Psychological Associates Press, 1973, 68.

Dale, Edgar and Chall, Jeanne S. "A Formula for Predicting Readability, Educational Research Bulletin, 1948, 27, 11-20.

Eberwein, Lowell D. "The Variability of Basal Reader Textbooks and How Much Teachers Know About It". Reading World, 1979, 18, 259-272.

Flesch, Rudolph F. Marks of a Readable Style. New York: Columbia University Press, 1943, 57-63.

Fry, Edward. "A Readability Formula that Saves Time", Journal of Reading, 1968, 11, 513-516.

Fry, Edward. "The Readability Principle", Language Arts, 1975, 34, 847-851.

Hirsch, E.D.,Jr. The Philosophy of Composition. Chicago: University of Chicago Press, 1977, 76.

Horn, Joan M. "Readability Study in Reading and Math", (M.A. Thesis, Kean College, 1978).

Klare, George. "Assessing Readability", Reading Research Quarterly, 1974-75, 10, 62-102.

Lively, Bertha A. and Pressey, S.L. "A Method for Measuring the Vocabulary Burden of Textbooks", Educational Administration and Supervision, 1923, 9, 389-398.

Lorge, Irving. "Predicting Reading Difficulty of Selections for Children", The Elementary English Review, 1939, 16 229-233.

McLaughlin, Harry G. "SMOG Grading--A New Readability Formula", Journal of Reading, 1969, 13, 639-645.

Miller, John W. and Marshall, Frances W. "Teachers Abilities to Judge the Difficulty of Reading Materials" (paper presented at the annual meeting of the International Reading Association, Houston, Texas, May, 1978)

Paolo, Margaret Fleming. "A Comparison of Readability Graph Scores and Oral Reading Errors on Trade Books for Beginning Readers" (M.A. Thesis, Rutgers University, 1977)

Spache, George. "A New Readability Formula for Primary-Grade Reading Materials", Elementary School Journal, 1953, 53, 410-413.

Vogel, Mabel and Washburne, Carleton. "An Objective Method of Determining Grade Placement of Children's Reading Material", Elementary School Journal, 1928, 28, 373-381.